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		Cys								-		_				
1				5	_				10			,-	·	15		
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		ttc Phe										-				96
IIIL	ASL	PHE	20	сту	Pne	ASP	GIU	25	Ата	Asp	Ала	GIU	30	Leu	Arg	
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		-4					- 4- 4-									
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Thr	Gly	Lys	Phe	Glu	Lys	Leu	Ile	Val	Ala	Leu	Met	Lys	Pro	Ser	Arg	

85 90 95

tatı Tyr		Туг				Ala			Gly	aca-	336
gaa Glu			Glu		Ile				_	-	384
aga Arg 130				Tyr					_	_	432
gat Asp								-	 _	_	480
gtt Val									-	_	528
caa Gln					-		-	-	 -		576
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gtg Val 210											672
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ctt Leu	Ala										816
cat His										-	864

275 280 285

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981

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<213> Homo sapiens

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Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu 35 40 45

Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe 50 55 60

Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu 65 70 75 80

Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg
85 90 95

Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr 100 105 110

Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu 115 120 125

Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu 130 135 140

Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu 150 155 Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu 165 170 Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu 185 Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg 195 200 Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser 210 215 220 Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu 225 230 235 Glu Gln Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala 245 250 Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp 265 Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu 275 280 285 Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr 290 295 Ser Met Ile Lys Gly Asp Thr Ser Gly Asp Tyr Lys Lys Ala Leu Leu

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				o Gly					Ala					: Le	cgg Arg	96
			t Ly:					Asp					Leu		ctg Leu	144
		Se					Gln					Ser			ttt Phe	192
						Asp					Leu				cta Leu 80	240
					Lys	tta Leu									Arg	288
				Tyr		ctg Leu								gga	aca	336
			Val			gaa Glu							cct			384
Leu	aga Arg 130	gcc Ala	atc Ile	aaa Lys	caa Gln	gtt Val 135	tat	gaa Glu	gaa Glu	gaa Glu	tat Tyr 140	ggc	tca Ser	agc Ser	ctg Leu	432
						gac Asp					tac					480
gtg (Asp							gaa	528
gct (Gln .					Ala		gaa		576
aaa t	tgg	ggg		gat	gaa	gaa			atc ·	acc	atc			aca	cga	624 ⁻

Lys	Trp	Gly 195	Thr	Asp	Glu	Glu	Lys 200	Phe	Ile	Thr	Ile	Phe 205	Gly	Thr	Arg	
	gtg Val 210									-		-				672
	ttt Phe															720
	caa Gln											_			_	768
	ctt Leu														-	816
	cat His													-	-	864
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ctg Leu	ctc Leu			_	_	-									·	981

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Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu 35 40 45

Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe 50 55 60

Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu 65 70 75 80

Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg 85 90 95

Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr 100 105 110

Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu 115 120 125

Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu 130 135 140

Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu 145 150 155 160

Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu 165 170 175

Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu 180 185 190

Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg 195 200 205

Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser 210 215 220

Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu 225 230 235 240

Glu Gln Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala 245 250 255

Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp 260 265 270

Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu 275 280 285

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100

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105

			Val					Ile					Pro	gaa Glu	gaa Glu -	384 -
		Ala					Tyr					Gly		agc Ser	_	432
	Asp													atg Met	_	480
														gat Asp 175	_	528
Ala	Gln	Val	Glu 180	Gln	Asp	Ala	Gln	Ala 185	Leu	Phe	Gln	Ala	Gly 190	gaa Glu	Leu	576
Lys	Trp	Gly 195	Thr	Asp	Glu	Glu	Lys 200	Phe	Ile	Thr	Ile	Phe 205	Gly	aca Thr	Arg	624
Ser	Val 210	Ser	His	Leu	Arg	Lys 215	Val	Phe	Asp	Lys	Tyr 220	Met	Thr	ata Ile	Ser	672
Gly 225	Phe	Gln	Ile	Glu	Glu 230	Thr	Ile	Asp	Arg	Glu 235	Thr	Ser	Gly	aat Asn	Leu 240	720
Glu	Gln	Leu	Leu	Leu 245	Ala	Val	Val	Lys	Ser 250	Ile	Arg	Ser	Ile	cct Pro 255	Ala	768
Tyr	Leu	Ala	Glu 260	Thr	Leu	Tyr	Tyr	Ala 265	Met	Lys	Gly	Ala	Gly 270	aca Thr	Asp	816
Asp	His	Thr 275	Leu	Ile	Arg	Val	Met 280	Val	Ser	Arg	Ser	Glu 285	Ile	gat Asp	Leu	864
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981

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Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu 35 40 . 45

Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe 50 55 60

Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu 65 70 75 80

Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg 85 90 95

Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr 100 105 110

Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu 115 120 125

Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu 130 135 140

Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu 145 150 155 160

Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu 165 170 175

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act gac ttc cct gga ttt gat gag cgg gct gat gca gaa act ctt cgg 96 Thr Asp Phe Pro Gly Phe Asp Glu Arg Ala Asp Ala Glu Thr Leu Arg

20 25 30.

aag gct atg aaa ggc ttg ggc aca gat gag gag agc atc ctg act ctg

144
Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu

85

35

40

45

95

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50 55 60

aag act ctg ttt ggc agg gat ctt ctg gat gac ctg aaa tca gaa cta
240
Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu
65
70
75
80

act gga aaa ttt gaa aaa tta att gtg gct ctg atg aaa ccc tct cgg 288 Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg

ctt tat gat gct tat gaa ctg aaa cat gcc ttg aag gga gct gga aca 336 Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr

100 105 110

90

aat gaa aaa gta ctg aca gaa att att gct tca agg aca cct gaa gaa 384 Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu

115 120 125

ctg aga gcc atc aaa caa gtt tat gaa gaa gaa tat ggc tca agc ctg
432
Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu
130
135
140

gaa gat gac gtg gtg ggg gac act tca ggg tac tac cag cgg atg ttg
480
Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu
145

gtg gtt ctc ctt cag gct aac aga gac cct gat gct gga att gat gaa 528 Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu

170

175

165

gct caa gtt gaa caa gat gct cag gct tta ttt cag gct gga gaa ctt
576
Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu
180 185 190

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195 200 205

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672
Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser
210
215
220

gga ttt caa att gag gaa acc att gac cgc gag act tct ggc aat tta
720
Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu
225
230
230
240

gag caa cta ctc ctt gct gtt gtg aaa tct att cga agt ata cct gcc
768
Glu Gln Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala
245
250
255

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Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp

260 265 270

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864
Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu
275
280
285

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290

295

300

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960

Ser Met Ile Lys Gly Asp Thr Ser Gly Asp Tyr Lys Lys Ala Leu Leu

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310

315

320

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981

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325

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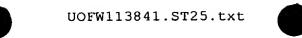
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Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe 50 55 60



Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu 70 Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr 105 100 Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu 125 115 120 Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu 130 140 Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu 155 145 150 Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu 170 175 165 Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu 190 180 185 Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg 205 195 200 Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser 215 210 Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu 240 225 230 235 Glu Gln Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala 250 255 245

Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp 260 265 270 Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu 275 280 285

Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr 290 295 300

Ser Met Ile Lys Gly Asp Thr Ser Gly Asp Tyr Lys Lys Ala Leu Leu 305 310 315 320

Leu Leu Ser Gly Glu Asp Asp 325

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48

Met Ala Gly Gly Cys Gly His Met Ala Gln Val Leu Arg Gly Thr Val

1 5 10 15

act gac ttc cct gga ttt gat gag cgg gct gat gca gaa act ctt cgg

96

Thr Asp Phe Pro Gly Phe Asp Glu Arg Ala Asp Ala Glu Thr Leu Arg

20 25 30

aag gct atg aaa ggc ttg ggc aca gat gag gag agc atc ctg act ctg
144
Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu

The Stands Hand was a little and the stand of the stands o

ttg aca tcc cga agt aat gct cag cgc cag gaa atc tct gca qct ttt Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe

aag act ctg ttt ggc agg gat ctt ctg gat gac ctg aaa tca gaa cta Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu

act gga aaa ttt gaa aaa tta att gtg gct ctg atg aaa ccc tct cgg Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg

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aat gaa aaa gta ctg aca gaa att att gct tca agg aca cct gaa gaa Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu

ctg aga gcc atc aaa caa gtt tat gaa gaa gaa tat ggc tca agc ctg
432
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130
135
140

gaa gat gac gtg gtg ggg gac act tca ggg tac tac cag cgg atg ttg
480
Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu
145

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624
Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg

195
200
205

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672
Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser
210
215
220

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720
Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu
225

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Glu Gln Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala
245
250
255

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864
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275
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285

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290 295 300

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Ser Met Ile Lys Gly Asp Thr Ser Gly Asp Tyr Lys Lys Ala Leu Leu
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Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe 50 55 60



Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu 65 70 75 80

Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg 85 90 95

Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr 100 105 110

Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu 115 120 125

Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu 130 135 140

Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu 145 150 155 160

Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu 165 170 175

Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu 180 185 190

Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg 195 200 205

Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser 210 215 220

Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu 225 230 235 240

Glu Gln Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala 245 250 255

Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp 260 265 270 .

Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr 290 295 300

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20 25 30

aag gct atg aaa ggc ttg ggc aca gat gag gag agc atc ctg act ctg

144

Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu

ti) 2 = h A ...

35

40

55

45

60

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145
150
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170
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624
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195
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205

Page 15

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672
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210
215
220

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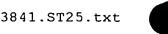
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Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu Glu Asp Asp Val Val Gly Asp. Thr Ser Gly Tyr Tyr Gln Arg Met Leu Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu Glu Gln Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp



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Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr 290 295 300

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